

In the claims:

1. A storage processing device, comprising:
an input/output module including
port processors to receive and transmit network traffic, and
a switch coupling said port processors; and
a control module coupled to said input/output module, said input/output module and said control module being configured to interactively support data virtualization.
2. The storage processing device of claim 1 wherein said port processors include a port processor with a frame classification module, a virtual target task, and a virtual initiator task.
3. The storage processing device of claim 1 wherein said input/output module and said control module support a virtualization processor including a virtual target, a volume manager mapping block, and a virtual initiator.
4. The storage processing device of claim 3, wherein said volume manager mapping block provides virtual block to physical block mappings.
5. The storage processing device of claim 3, wherein said port processors include a port processor with a frame classification module, a virtual target task and a virtual initiator task.
6. The storage processing device of claim 5, wherein said port processor utilizes said volume mapping block and said virtual target task to translate received frames from a virtual target to a physical target.
7. The storage processing device of claim 6, wherein said port processor utilizes said virtual initiator task to transmit frames to the physical target and receive response frames from the physical target.
8. The storage processing device of claim 7, wherein the virtual target translates to two physical targets and wherein said port processor utilizes said virtual

target task to prepare a command frame for the second physical target and said virtual initiator to transmit said command frame to the second physical target.

9. A fabric for coupling at least one host and at least one storage device, the fabric comprising:

at least one switch for coupling to the at least one host and the at least one storage device; and

a storage processing device coupled to the at least one switch and for coupling to the at least one host and the at least one storage device, the storage processing device including:

an input/output module including

port processors to receive and transmit network traffic, and

a switch coupling said port processors; and

a control module coupled to said input/output module, said input/output module and said control module being configured to interactively support data virtualization.

10. The fabric of claim 9 wherein said port processors include a port processor with a frame classification module, a virtual target task, and a virtual initiator task.

11. The fabric of claim 9 wherein said input/output module and said control module support a virtualization processor including a virtual target, a volume manager mapping block, and a virtual initiator.

12. The fabric of claim 11, wherein said volume manager mapping block provides virtual block to physical block mappings.

13. The fabric of claim 11, wherein said port processors include a port processor with a frame classification module, a virtual target task and a virtual initiator task.

14. The fabric of claim 13, wherein said port processor utilizes said volume mapping block and said virtual target task to translate received frames from a virtual target to a physical target.

15. The fabric of claim 14, wherein said port processor utilizes said virtual initiator task to transmit frames to the physical target and receive response frames from the physical target.

16. The fabric of claim 15, wherein the virtual target translates to two physical targets and wherein said port processor utilizes said virtual target task to prepare a command frame for the second physical target and said virtual initiator to transmit said command frame to the second physical target.

17. A network comprising:

at least one host;

at least one storage device; and

a fabric coupling the at least one host and the at least one storage device, the fabric comprising:

at least one switch for coupling to the at least one host and the at least one storage device; and

a storage processing device coupled to the at least one switch and for coupling to the at least one host and the at least one storage device, the storage processing device including:

an input/output module including

port processors to receive and transmit network traffic,

and

a switch coupling said port processors; and

a control module coupled to said input/output module, said input/output module and said control module being configured to interactively support data virtualization.

18. The network of claim 17 wherein said port processors include a port processor with a frame classification module, a virtual target task, and a virtual initiator task.

19. The network of claim 18 wherein said input/output module and said control module support a virtualization processor including a virtual target, a volume manager mapping block, and a virtual initiator.

20. The network of claim 19, wherein said volume manager mapping block provides virtual block to physical block mappings.

21. The network of claim 19, wherein said port processors include a port processor with a frame classification module, a virtual target task and a virtual initiator task.

22. The network of claim 21, wherein said port processor utilizes said volume mapping block and said virtual target task to translate received frames from a virtual target to a physical target.

23. The network of claim 22, wherein said port processor utilizes said virtual initiator task to transmit frames to the physical target and receive response frames from the physical target.

24. The network of claim 23, wherein the virtual target translates to two physical targets and wherein said port processor utilizes said virtual target task to prepare a command frame for the second physical target and said virtual initiator to transmit said command frame to the second physical target.

25. A method for supporting data virtualization in a storage processing device, comprising:

providing an input/output module including:

port processors receiving and transmitting network traffic; and
a switch coupling said port processors; and

providing a control module coupled to said input/output module, said input/output module and said control module being configured to interactively support data virtualization.

26. The method of claim 25 wherein said port processors include a port processor with a frame classification module, a virtual target task, and a virtual initiator task.

27. The method of claim 25 wherein said input/output module and said control module support a virtualization processor including a virtual target, a volume manager mapping block, and a virtual initiator.

28. The method of claim 27, wherein said volume manager mapping block provides virtual block to physical block mappings.

29. The method of claim 27, wherein said port processors include a port processor with a frame classification module, a virtual target task and a virtual initiator task.

30. The method of claim 29, wherein said port processor utilizes said volume mapping block and said virtual target task to translate received frames from a virtual target to a physical target.

31. The method of claim 30, wherein said port processor utilizes said virtual initiator task to transmit frames to the physical target and receive response frames from the physical target.

32. The method of claim 31, wherein the virtual target translates to two physical targets and wherein said port processor utilizes said virtual target task to prepare a command frame for the second physical target and said virtual initiator to transmit said command frame to the second physical target.